



L•PRIZE™

Bright Tomorrow Lighting Prizes

U.S. Department of Energy

Transforming the  
lighting landscape

# Transforming the lighting landscape

**T**he L Prize™ competition is the first government-sponsored technology competition designed to spur lighting manufacturers to develop high quality, high efficiency solid-state lighting products to replace the common light bulb. The competition will award significant cash prizes, plus opportunities for federal purchasing agreements, utility programs, and other incentives for winning products.

The L Prize competition aims to substantially accelerate America's shift from inefficient, dated lighting products to innovative, high-performance products. Just as Thomas Edison transformed illumination over a century ago, the L Prize will drive innovation and market adoption.

## The L Prize Competition

The Energy Independence and Security Act of 2007 directs the U.S. Department of Energy (DOE) to establish the Bright Tomorrow Lighting Prize (L Prize) competition. The legislation challenges industry to develop replacement technologies for two of today's most widely used and inefficient products: 60W incandescent lamps and PAR 38 halogen lamps. It also calls for development of a 21st Century Lamp that delivers more than 150 lm/W.

**Lighting products meeting the competition requirements would consume only about 17 percent of the energy used by most common incandescent lamps today.**

The legislation establishes basic requirements and prize amounts for each category. To draw on lessons learned from past lighting market introduction experiences, DOE approached several leading California utilities to tap their deep expertise in developing a comprehensive technology competition program.

The L Prize program announcement includes technical specifications to ensure compliance with the general requirements outlined in the legislation, with additional details specified for quality, performance, and mass manufacturing. Lighting products meeting the competition requirements would consume only about 17 percent of the energy used by most common incandescent lamps today.

The competition also includes a rigorous evaluation process for proposed products, including product testing by independent laboratories and field assessments in real world conditions. For more details on the competition requirements, visit [www.lightingprize.org](http://www.lightingprize.org).

## Competition Requirements

### 60W Incandescent Replacement Lamp

- More than 90 lm/W
- Less than 10 Watts
- More than 900 lumens
- More than 25,000 hour life
- More than 90 CRI

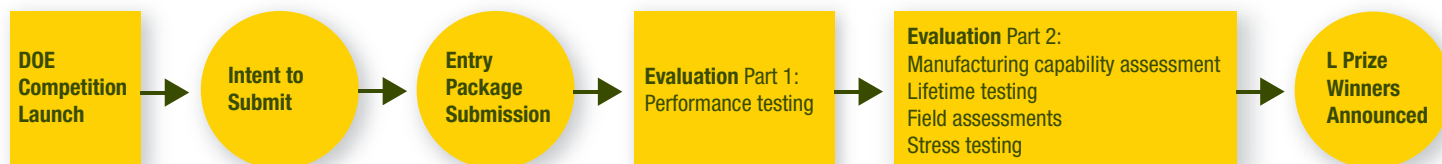
### PAR 38 Halogen Replacement Lamp

- More than 123 lm/W
- Less than 11 Watts
- More than 1,350 lumens
- More than 25,000 hour life
- More than 90 CRI

### 21st Century Lamp

- To be defined in a future L Prize Program Announcement

## Competition Process



To download the complete Program Announcement and competition requirements, visit [www.lightingprize.org](http://www.lightingprize.org).

### Leaders for Change in Illumination Technology

Four major California utilities — Pacific Gas & Electric, Sacramento Municipal Utility District, San Diego Gas & Electric, and Southern California Edison — have signed a Memorandum of Understanding with the U.S. Department of Energy, agreeing to work cooperatively to promote high-efficiency solid-state lighting technologies. These utility leaders have provided valuable input to the competition planning process and are prepared to implement incentives and promotions to stimulate additional sales for the award-winning products.

#### Product evaluation

During the competition, these program partners will assist in product evaluations by conducting field assessments of proposed products and providing input to the overall evaluation process and selection of the winners.

#### Product promotion

Program partners will also play an important role in promoting and developing markets for the winning L Prize products. Product promotions might include utility incentives, collaborative marketing and educational campaigns, retail partnerships, and demonstrations.

#### Join us

Energy efficiency program partners from other states and regions, in addition to California, will be invited to participate in product evaluation and promotion of the winning L Prize products. Learn more at [www.lightingprize.org](http://www.lightingprize.org).



## About Solid-State Lighting

Solid-state lighting has the potential to reduce lighting energy use by 50 percent, and to revolutionize the efficiency, appearance, and quality of lighting. No other lighting technology offers so much potential to save energy, at a time when our nation needs bold solutions to vastly reduce our energy consumption.

The U.S. Department of Energy has made a long-term commitment to provide national leadership to advance research, development, and market introduction of solid-state lighting. The L Prize competition aims to accelerate the development and market adoption of innovative, high-performance products that will save significant amounts of energy and millions of metric tons of greenhouse gas emissions.

### Energy Savings and Environmental Impact: 60W Incandescent Replacement Winner

If every socket in the U.S. converted from 60W incandescent lamps to the 10W L Prize winner, the country would save approximately 34.0 Terawatt-hours of electricity in one year, and avoid 5.6 million metric tons of carbon emissions. That's enough electricity to power the lights of 17.4 million U.S. households.

### Energy Savings and Environmental Impact: PAR 38 Halogen Replacement Winner

If all 141 million reflector lamp sockets in the U.S. converted overnight to use the new L Prize lamp, the country would save approximately 15.6 Terawatt-hours of electricity per year and avoid roughly 2.6 million metric tons of carbon emissions. These savings are equal to the annual electricity consumption of the entire state of Wyoming.

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*Visit [www.lightingprize.org](http://www.lightingprize.org) for more details on competition guidelines and how to become a program partner.*



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